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715		3,197,798	08-03-1965	Brown	et al.				
115		4,380,844	04-26-1983	Waldha	user et'al.	15	320		
173		5,454,138	10-3-1995	Mondig	a et <b>21.</b>	15	354		
415		5,940,928	08-24-1999	Erko		15	319		
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115	_	3,742,546	7/3/73	Crener	et al.	15	320				
112		3,795,933	3/12/74	Seufert		15	114				
7775		3,921,244	11/25/75	Warren	et al.	15	98				
715		3,931,659	1/13/76	Plefferk	orn et al.	15	246				
715		3,942,215	3/9/76	Olds		15	320				
115		3,952,361	4/27/76	Wilkins		15	319				
11.2		3,972,088	8/3/76	Thomas		15	4				
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715		0569984A1	18.11.93	Europea	n Patent Office		-				
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115	1		•				•				
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-175	4,118,819	10/10/78	Gordon et al.				
115	4,122,576	10/31/78	Bevington et al.	15	98		
115	4,150,456	4/24/79	Alvarez et al-	15	246		
15	4,214,337	7/29/80	Nise et al.				
113	4,237,571	12/9/80	Nelson		<u></u>		
175	4,295,243	10/20/81	King	15	320		
115	4,322,920	4/6/82	Wells	15	246	,	
115	4,393,534	7/19/83	Lec et al.	15	98		
115	4,492,002	1/8/85	Waldhauser et al.	15	320		
175	4,577,364	3/25/86	Demetriades	15	320		
115	4,506,405	3/26/85	Block	15	320		
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·	OTHER DOCUME		Author, Title, Date, Perlinent F				
115	Evans, John M., "Helph University Press, pages:	fate: a service rub 19-21, (1995).	not success story", Service Robot: A	n Internationa	l Journal, Vel.	1, No. 1, MCB	
13	Hofner, Christian and C Robet", Department for	unther Schmidt, ' Automatic Contr	Path Planning And Guidance Tech ol Engineering (LSR) Technische U	iniques For An Diversitat Mun	Autonomous / chen,Germany	Mobile Cleaning , pages: 610-617.	
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115	4,633,541	1/6/87	Block	15	320	# APPROPRIATE
13	4,783,872	11/15/88	Burhoe	15	98	
075	4,790,402	12/13/88	Field et al.			
775	4,819,676	4/11/89	Blehert et al.	15	349	
115	4,825,500	5/2/89	Basham et al.	15	319	
725	4,910,824	3/27/90	Nagayama et al.	15	98	τ.
7/3	4,940,08z	7/10/90	Roden	15	321	
7.75	4,958,068	9/18/90	Pong et al.			
715	5,020,620	6/4/91	Field		-	
723	5,032,775	7/16/91	Mizuno et al.		-	· · · · · · · · · · · · · · · · · · ·
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13	Jenkips, Frank, "Practics Park, CA 94026, pages: 8	i Requirements	or a Domestic Vacuum-Cleaning Rob	ot", JRL Co	nsulting, P.O. F	ox 1289, Menio
15	Leng, Goh Wee, "An Exp Technological Institute, S	eri Autonomous ingapore, pages:	Vacuum Cleaner Robel", School of E 598-604, 1988.	lectrical & E	lectronic Engin	eering, Nanyang
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775	5,093,955	3/10/92	Blehert et al.  Killian et al.		15	320	
113	5,148,573	9/22/92			15	339	
-115	5,212,848	5/25/93	Geyer	•	15	401	
715	5,253,384	10/19/93	Joines et	t al.	15	98	
15	5,254,146	10/19/93	Beaufoy		15	340,3	
-115	5,287,581	2/22/94	Lo		15	52	120
TIS	5,289,605	3/1/94	Armbrus	ster	15	97./	
115	5,293,955	3/15/94	Lee		15	319	
TIS	5,307,273	4/26/94	Oh et al.				
U	5,371,912	12/13/94	Hall		15	98	
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75	Ward, Charles W., "Swc 14 -1 to 14-6.	eping Revelations	From A Fi	rst Time Robot-User", (	Commercial Ser	vices of Virgin	ais, Inc., pages:
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115	5,402,559	4/4/95	Allison et al.	15	228	
115	5,440,216	8/8/95	Kim ,	15	319	
175	5,467,500	17/21/95	O'Hara et al.	15	320	
115	5,534,762	7/9/96	Kim	15	340.	
11.5	5,548,511	8/20/96	Bancroft	15	319	
713	5,566,422	10/22/96	Geyer	15	320	149
175	5,611,105	3/18/97	Bichert et al.	15	320	
13	5,613,261	3/25/97	Kawakami et al.	15	98	
73	5,621,291	4/15/97	Les		· ·	
113	S,623,743	4/29/97	Burgoon et al.	15	3.20	
47.3	5,636,402	Kubo et al.	.15	98		
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	No.4, VSP and Robotics	of Introduction to Society of Japan	clessing work in the East Japan Ra , pages: 403-414, (1996).	llway Compan	y", Advanced l	Roboties, Val. 10
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